# Foundations of Practice and Beyond

## Tuesday

### Stream A
**Session 4 1330**
**Session 5 1430**

### Linet UK
### Session taken by Stephen Wanless

## Motion Capture with Moving and Handling Training – The Next Stage

Abstract

The session will review a physical patient handling simulation with a real-time motion capture performance in order to allow a user to interact within a virtual world in complex scenarios. While still following the user's motions, the simulated character is able to perform the move in a virtual world.
It is axiomatic that professional activity requires competence. The current method of teaching moving and handling throughout the UK involves the learner receiving verbal feedback on their performance. The introduction of a haptic feedback suit aims to provide the delegate with vibrotactile and visual feedback on their performance, highlighting areas of poor posture and positioning by vibrating if they move from the "norm". It will provide the user with a 3D avatar which visually gives them feedback on their posture enabling them to change their behaviour and attitude towards moving and handling and assist them in retaining the information longer, moving from novice to expert.
The session will review a physical patient handling simulation with a real-time motion capture performance in order to allow a user to interact within a virtual world in complex scenarios. While still following the user's motions, the simulated character is able to perform the move in a virtual world.
By giving the user direct control over the character, we eliminate the need for prerecording motions by allowing the user to input his or her intelligent control. We have created a continuum between kinematics and dynamics which follows the users motions as closely as possible, while still remaining physically faithful to the virtual environment. The result allows the user to roll a patient, carry objects, push, grab, dodge, and brace many different objects in physically based, virtual world, allowing the user to validate their moving and handling performance.